Snow Surveyors Climbing to a Snow Course

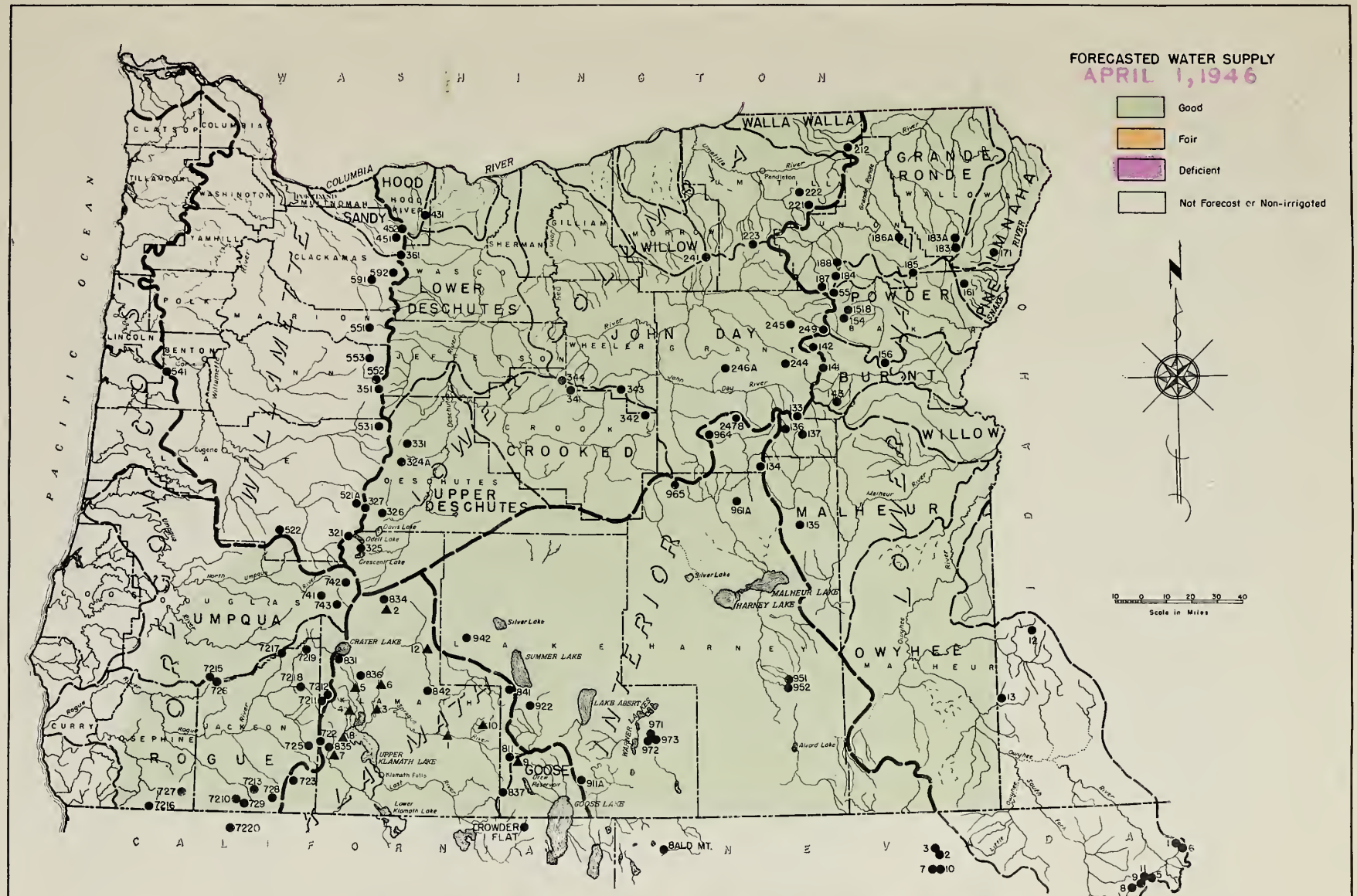
FEDERAL-STATE COOPERATIVE SNOW SURVEYS AND IRRIGATION WATER FORECASTS FOR OREGON

APRIL 1, 1946

By

Division of Irrigation, Soil Conservation Service
United States Department of Agriculture
and
Oregon Agricultural Experiment Station

Data included in this report were obtained by the agencies named above in cooperation with the Oregon State Engineer, U. S. Forest Service, National Park Service and other Federal, State and local organizations.



PROSPECTIVE WATER SUPPLIES TO IRRIGATED AREAS OF OREGON

BASED ON SNOW SURVEYS MADE ON APPROXIMATELY FIRST DAY OF APRIL

(Dry Farm Areas or Forest and Range Lands Not Necessarily Included)

U.S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE
JANUARY 1, 1945 7-L-8563

INDEX TO SNOW COURSES

Number	Name	Elev.
	UPPER COLUMBIA DRAINAGE Lower Snake in Oregon	
	OWYHEE RIVER	
Nev.1	Big Bend	6800
Nev.2	Buckskin, Lower	6800
Nev.3	Buckskin, Upper	8200
952	Fish Creek	7900
Nev.5	Fry Canyon	6800
Nev.6	Gold Creek Ranger Sta.	6600
Nev.7	Granite Peak	8600
Nev.8	Jack Creek, Lower	7000
Nev.9	Jack Creek, Upper	7800
Nev.10	Martin Creek	7000
Nev.11	Rodeo Flat	7000
Ide.12	Silver City	6400
951	Silvies	6900
Ida.13	South Mountain No. 2	6340
Nev.15	Taylor Canyon	5200
	MALHEUR RIVER	
133	Blue Mountain Spring	5900
137	Crane Prairie	5375
136	Lake Creek	5120
134	Rock Spring	5100
135	Stinking Water	4800
	BURNT RIVER	
143	Barney Creek	5950
141	Blue Mountain Summit	5098
156	Dooley Mountain	5430
142	Tipton	5100
	POWDER RIVER	
155	Anthony Lake	7125
154	Bourne	5800
156	Dooley Mountain	5430
151B	Eilertson Meadows	5400
249	Gold Center	5340
184	Summit Springs	6000
185	Taylor Green	5740
	PINE CREEK	
161	Schneider Meadows	5400
	IMNAHA RIVER	
171	Coverdale	4250
	GRANDE RONDE RIVER	
183	Aneroid Lake	7480
183A	Aneroid Lake No. 2	7000
155	Anthony Lake	7125
188	Beaver Reservoir	5340
187	Camp Carson	5970
186A	Moss Spring	5850
184	Summit Springs	6000
185	Taylor Green	5740
212	Tollgate	5070

Number	Name	Elev.
	LOWER COLUMBIA DRAINAGE	
	WALLA WALLA RIVER	
212	Tollgate	5070
	UMATILLA RIVER	
222	Emigrant Springs	3925
223	Lucky Strike	5050
221	Meacham	4300
212	Tollgate	5070
	WILLOW CREEK	
241	Arbuckle Mountain	5400
	JOHN DAY RIVER	
241	Arbuckle Mountain	5400
246A	Beech Creek Summit	4800
133	Blue Mountain Spring	5900
141	Blue Mountain Summit	5098
244	Dixie Springs	6650
249	Gold Center	5340
964	Izee Summit	5293
245	Olive Lake	6000
965	Snow Mountain	6300
247B	Starr Ridge	5150
	DESCHUTES RIVER	
326	Caldwell Ranch	4400
321	Cascade Summit	4880
327	Charlton Lake	5750
361	Clear Lake	3500
325	Crescent Lake	4760
343	Derr	5670
351	Hogg Pass	4755
344	Marks Creek	4540
324A	New Dutchman Flat	6400
341	Ochoco Meadows	5200
965	Snow Mountain	6300
342	Tamarack	4800
331	Three Creeks Meadows	5600
	HOOD RIVER	
431	Brooks Meadows	4300
	SANDY RIVER	
361	Clear Lake	3500
452	Phlox Point - Mt. Hood	5600
451	Still Creek	3700
	CLACKAMAS RIVER	
592	Clackamas Lake	3400
591	Peavine Ridge	3500

Number	Name	Elev.
	WILLAMETTE RIVER	
551	Breitenbush	2325
321	Cascade Summit	4880
522	Champion	4500
327	Charlton Lake	5750
351	Hogg Pass	4755
531	McKenzie	4800
553	Marion Forks	2730
541	Mary's Peak	3620
552	Santiam Junction	3990
521A	Waldo Lake	5500
	KLAMATH LAKE BASIN	
831	Annie Spring	6018
722	Billie Creek Divide	6000
834	Chemult No. 1	4760
Calif.	Crowder Flat	5200
723	Hyatt Prairie Reservoir	4900
835	Lake of the Woods No. 1	4960
811	Quartz Mountain	5320
7211	Seven Lakes No. 1	6800
7212	Seven Lakes No. 2	6200
837	Strawberry	5600
841	Summer Rim	7200
836	Sun Mountain	5350
842	Taylor Butte	5100
	GOOSE LAKE BASIN	
911A	Camas Creek	5720
811	Quartz Mountain	5320
837	Strawberry	5600

INDEX TO THE CALIFORNIA OREGON POWER COMPANY SNOW WATER STATIONS

	KLAMATH LAKE BASIN	
1	Beatty	4300
2	Chemult	4761
3	Chiloquin	4187
4	Crystal	4200
5	Fort Klamath	4150
6	Kirk	4533
7	Lake of the Woods	4960
8	Pelican	4200
9	Quartz Mountain	5504
10	Richardson Ranch	4800
12	Yamsey	4600
	GOOSE LAKE BASIN	
9	Quartz Mountain	5504

Number	Name	Elev.
	INTERIOR DRAINAGE	
	SILVER LAKE	
942	Silver Creek	4900
	CHEWAUCAN RIVER	
922	Mill Creek	6200
	HARNEY BASIN	
973	Deer Creek	6670
952	Fish Creek	7900
971	Hart Mountain	6350
961A	Idylwild Park	5200
964	Izee Summit	5293
134	Rock Spring	5100
951	Silvies	6900
965	Snow Mountain	6300
247B	Starr Ridge	5150
	WARNER LAKE	
911A	Camas Creek	5720
	GUANO LAKE	
Nev.	Bald Mountain	6720
972	Guano Creek	6480
	WEST COAST DRAINAGE	
	UMPQUA RIVER	
522	Champion	4500
743	Diamond Lake	5315
726	Goolaway Gap	3000
7215	Goolaway Mountain	3730
742	N.Umpqua near Lake Creek	4215
741	Trap Creek	3800
7217	Whaleback	5140
	ROGUE RIVER	
7216	Althouse	4400
831	Annie Spring	6018
729	Big Red Mountain	6500
722	Billie Creek Divide	6000
725	Fish Lake	4865
726	Goolaway Gap	3000
7215	Goolaway Mountain	3730
727	Grayback Peak	6000
723	Hyatt Prairie Reservoir	4900
7210	Little Red Mountain	6500
7220	Scragg Mountain	6200
7211	Seven Lakes No. 1	6800
7212	Seven Lakes No. 2	6200
7219	Silver Burn	3720
728	Siskiyou Summit	4630
7218	South Fork Canal	3500
7213	Wagner Butte	6900
7217	Whaleback	5140

April 1, 1946

WATER SUPPLY OUTLOOK

Oregon's 1946 water supply prospects are generally the best since 1943 with no water shortages foreseen in any important irrigated section and with above-normal streamflow forecast throughout the State.

Mountain snow cover enters the melting season with a measured water content 68 percent greater than normal and 52 percent greater than last year. Forecast streamflow throughout the State will be above normal and will generally equal 150 percent of the 1929-44 average, 134 percent of last year, and 93 percent of the abundant flows of 1943. Individual streams will vary from this general average but above average flow is indicated in all areas.

Total water stored in all reservoirs is 6 percent greater than of this date last year, is 12 percent greater than in 1944, 8 percent less than in 1943, and is 2 percent greater than the ten-year average, 1936-45. The number of reservoirs half full or better is the same as in 1945 and 1944 but is slightly less than in 1943. Many reservoirs are by-passing water to provide space for anticipated inflow.

Precipitation accumulated in Oregon valleys since October 1 averages 118 percent of normal, as compared with 89 percent of normal last year and 141 percent of normal in 1943.

Irrigated crop land soil moisture and watershed soil moisture is better than average and also better than last year.

Potential flood hazards exist in the present abnormally heavy snow cover but will not likely materialize unless abnormal melting conditions develop during the early runoff period.

Streamflow forecasts are summarized on pages 2 and 3 of this report, and forecast committee reports are detailed beginning on page 19.

Explanation of Tabulation Below and of Water Forecast Map Preceding Page 1

Tabulated below are figures indicating for what percentage of Oregon's irrigated acreage (1,049,176 acres total by 16th U. S. Census, 1940) the 1945 irrigation water supply is expected to be "good" or otherwise. The descriptive words indicate whether or not the prospective water supply to the given percentages of the total is expected to be, by local standards, deficient, fair (generally adequate but somewhat short late in the season), or good, for crop production on the usual acreage. These differences are shown in color on the map preceding page 1.

Prospective 1946 Irrig. Supply:	Deficient	Fair	Good	No Forecast	Total
Percent of Total Irrigated Area:	0	0	97	3	100

The following summarized runoff forecasts are based on mountain snow cover and on the assumption that precipitation and temperature during the runoff season will be approximately normal. Appreciable deviations from normal of temperature and/or precipitation, especially during April, May, or June, will correspondingly modify these forecasts.

		Apr.-Sept., incl., Stream Flow Expectancy as of Apr. 1, 1946		
Area	Stream	Acre Feet	As % of Avg. 1929-44	As % of Last Year
Northcentral	Hood River, West Fk. near Dee (Station 438)	160,000	114 b	107
	White River below Tygh Valley (3613)	185,000	139	155
Umatilla-Walla Walla	McKay Creek above McKay Reservoir (2213)	31,000	129	93 1
	S. Fk. Walla Walla River near Milton (214)	82,500	129 a	133 1
	Umatilla R. nr. Gibbon (2236)	120,000	158 b	129 1
	Umatilla R. at Pendleton (223)	200,000	137	101 1
Northeastern	Bear Creek near Wallowa (1815)	70,000	119	j
	Grande Ronde River near LaGrande (1816)	220,000	149	j
	Hurricane Cr. near Joseph (1814)	50,000	132	j
	Imnaha River at Imnaha (172)	385,000	158	132
	Lostine R. near Lostine (1810)	135,000	128	j
	Powder River at Salisbury (152)	80,000	164	j
	Wallowa R., E. Fk. (1822+1823)	13,000	140	119
	Catherine Creek nr. Union (185)	90,000	145	j
	Burnt River near Hereford (143) (Natural Flow)	65,000	209	j
Eastern	John Day River at Prairie City (2415) (with Power Canal)	50,000	133	j
	John Day R., Mid. Fk. at Ritter (2433)	160,000	167	j
	John Day R., N. Fk. nr. Dale (2432)	300,000	154	j
	Malheur River, Middle Fork, near Drewsey (1320)	86,000	155	j

(Continued on page 3)

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Area	Stream	Apr.-Sept., incl., Stream Flow Expectancy as of Apr. 1, 1946: Acre Feet	As % of Avg. 1929-44	As % of Last Year
Eastern (Continued)	Malheur River, North Fork, at Beulah (139)	70,000	154	j
	Owyhee R. abv. Owyhee Res. (1232)	500,000	125 c	78 l
	Strawberry Creek near Prairie City (2434)	9,200	133 c	115
Harney Basin	Silvies R. near Burns (966)	104,000	175	105
Central	Crescent Lake Net Inflow	20,000	183	180
	Deschutes R. below Snow Cr. (3225)	90,000	206 k	238
	Ochoco Reservoir Net Inflow	38,000	285	128
	Odell Cr. nr. Crescent (3212)	40,000	168 d	166
	Squaw Cr. nr. Sisters (335)	60,000	129	156
	Tumalo Cr. & C. S. Canal (338a)	53,000	126	138
Southcentral	Chewaucan R. nr. Paisley (924)	90,000 e	176 e	138 e
	Deep Creek abv. Adel (9127)	84,000 e	170 e,f	120 e
Klamath Basin	Clear Lake Reservoir Net Inflow	67,500 g	130 h	j
	Gerber Reservoir Net Inflow	127,600 g	118 h	j
	Upper Klamath Lake Net Inflow	783,000	197	188
	Sprague River above Chiloquin (8421)	340,000	183	j
	Williamson R. below Sprague River (8419)	530,000	165	j
Southern	Applegate R. near Ruch (7212)	145,000	131	j
	Clearwater R. abv. Trap Cr. (7420)	67,000	120	121
	Fourmile Lake Net Inflow	10,300	155 i	129 l
	Hyatt Prairie Res. Net Inflow	6,400	127	j
	Little Butte Cr., N. Fk., below Fish Lake (Natural flow) (7230)	17,700	143	j
	N. Umpqua R. below Lake Cr. (7419)	177,000	126	119
	N. Umpqua R. at Toketee Falls (7414)	425,000	129	122
	Rogue R., N. Fk. abv. Prospect (722)	420,000	154	142
	Rogue R., Mid. Fk., plus Power Canal (7217a)	87,000	130	j
	Rogue R., S. Fk., abv. Imnaha Cr. (7282)	71,000	132	130
	Rogue R. below S. Fk. (7277)	860,000	143	j
Willamette Valley	Clackamas R. at Big Bottom (5911)	195,000	130	j
	McKenzie R. at McKenzie Br. (534)	710,000	134	133
	McKenzie R. near Vida (535)	1,600,000	144	130
	Willamette R., Mid. Fk., at Eula (512)	1,180,000	159	j

a - 1932-44 average
b - 1933-44 "
c - 1931-44 "
d - 1934-44 "

e - April-June, incl., rather than April-Sept.
f - 1930-44 average
g - Stream year 1945-46
h - 1905-44 average

i - 1929-44, incl., lacking 1931
j - not available
k - 1938-44 average
l - 1945 runoff figure tentative only

COMPARISON OF SNOW COVER AS OF APRIL FIRST WITH THAT OF PREVIOUS YEARS

Snow-stored water now present above 5,000 feet:

As percent of that present one month ago	--	106
As percent of that present one year ago	--	137
As percent of that present two years ago	--	200
As percent of average	--	139

Snow-stored water now present from 2,000-5,000 feet:

As percent of that present one month ago	--	100
As percent of that present one year ago	--	240
As percent of that present two years ago	--	316
As percent of average	--	204

Water content of snow on 74 percent of all measured courses is more than at this time in 1945, and in 86 percent of the comparisons, is more than on about April 1 of 1944. Water content of snow on 81 percent of all measured courses is greater than average.

The intent of the tabulation below is to show in a general way the relationship of April 1, 1946 snow cover to that of earlier years at a comparable date. Greatest recorded April 1 water content of snow is underscored.

Water Content of Snow (Inches) as of About April 1

Stream Basin	Owyhee	Malheur-John Day	Harney-John Day	John Day-Burnt	Powder	Grande Ronde	Walla Walla	Crooked	Clackamas	Willam-Desch.	Rogue-Umpqua	Klam-Rogue	Klam-Rogue
Snow Course / Year	Big Bend	Blue Mt. Springs	Izee Summit	Blue Mt. Summit	Bourne	Aneroid Lake No. 1	Toll-gate	Ochoco Mdws.	Peavine Ridge	Cascade Summit	Diam. Lake	Annie Sprg.	Billie Creek Divide
1928								7.5					
1929		9.4						7.8		28.1	9.4[c]		20.8
1930		4.1						0.6		10.0	3.5[c]	20.5	0.0
1931		9.1		5.2			21.7	6.2		16.2	9.0[c]	26.1	13.1
1932		22.3		N.R.		41.1	41.4	12.7		42.0	23.8[c]	23.6[b]	29.2[d]
1933		22.4		N.R.		40.4[a]	36.6	N.R.		43.3	33.0[c]	N.R.	31.3
1934		N.R.		N.R.		27.2[b]	0.0	0.0		N.R.	1.4[c]	N.R.	-
1935	8.8	11.0		N.R.		33.1	25.6	10.5		35.1	10.2[c]	55.8	32.1
1936	19.2	18.2	10.5	9.6	18.3	32.5	41.3	12.6		36.0	19.2[c]	56.1	38.2
1937	10.5	16.1	7.5	6.2	10.5	27.9	25.9	15.0	25.2	32.4	23.2	43.5	26.6
1938	11.4	23.4	8.8	8.9	17.1	47.3	23.0	14.7	23.7	31.4	33.1	61.9	26.4
1939	3.4	11.1	6.2	3.0	11.1	30.1	29.8	7.6	23.3	38.5	19.8	37.4	33.1
1940	3.8	8.8	0.0	1.0	11.9	31.5	18.7	3.8	2.9	15.4	9.8	44.1	9.4
1941	9.7	9.8	3.1	2.8	10.3	28.4	12.1	4.6	0.0	11.4	6.7	39.1	6.7
1942	10.4	12.6	6.3	9.0	13.6	33.6	13.4	9.9	9.3	19.7	12.1	31.9	19.3
1943	15.3	21.8	10.6	12.2	22.6	43.1	34.6	13.1	35.5	39.4	31.3	49.9	31.3
1944	5.6	8.2	5.6	4.6	8.4	21.0	20.0	5.0	9.8	15.9	10.6	23.9	17.0
1945	12.1	14.1	8.6	7.7	22.5	30.5	15.3	11.0	10.4	20.8	17.6	36.1	22.3
1946	10.8	22.0	8.9	11.3	20.6	44.1	39.9	16.4	24.8	43.9	35.9	69.3	36.6

a - April 19 b - April 17 c - From Copco Water Station d - April 22 N.R. - No report

STATUS OF SNOW COVER AS OF APRIL FIRST
Summary of Snow Survey Data
by Watersheds as of About April First

Stream Basin	Number of Snow Courses Averaged	Average Water Depth in Snow Cover (Inches) 1946	1945	1944	Avg. Past Yrs. of Record	Yrs. of Record	1946 Snow Water Depth (Inches) as Percent of that in 1945	1944	Avg.
Owyhee River	14	7.8	11.3				69		
	14	7.8		5.5				142	
	14	7.8			7.8	(4-11)			100
Malheur River	6	10.6	7.5				141		
	5	10.4		4.5				231	
	6	10.6			7.0	(1-16)			151
Burnt River	4	12.4	9.4				132		
	3	12.7		5.9				215	
	4	12.4			7.8	(1-13)			159
Powder River	7	19.9	15.8				126		
	7	19.9		11.5				173	
	7	19.9			14.9	(7-13)			134
Pine Creek	1	36.3	26.1				139		
	1	36.3		20.3				179	
	1	36.3			27.3	(8)			133
Grande Ronde River	9	27.6	20.0				138		
	10	25.9		15.1				172	
	10	25.9			19.5	(4-17)			133
Walla Walla River	1	39.9	26.0				153		
	1	39.9		20.0				200	
	1	39.9			25.0	(15)			160
Umatilla River	4	19.7	14.2				139		
	4	19.7		10.8				182	
	4	19.7			12.2	(7-17)			161
Willow Creek	1	15.6	11.8				132		
	1	15.6		6.8				229	
	1	15.6			9.5	(17)			164
John Day River	10	16.0	11.7				137		
	10	16.0		7.3				219	
	10	16.0			10.4	(2-17)			154
Deschutes River	9	30.4	12.5				243		
	8	31.6		9.6				329	
	9	30.4			16.2	(1-17)			188
Crooked River	3	11.0	7.5				147		
	3	11.0		4.4				250	
	3	11.0			6.8	(8-17)			162
Hood River	1	20.3	8.0				254		
	1	20.3		5.0				406	
	1	20.3			8.4	(13)			242

(Continued)

Stream Basin	Number of Snow Courses Averaged	Average Water Depth in Snow Cover (Inches) 1946	1945	1944	Avg. Past Yrs. of Record	Yrs. of Record	1946 Snow Water Depth (Inches) as Percent of that in 1945	1944	Avg.
Sandy River	3	34.3	24.1				142		
	3	34.3		20.6				166	
	3	34.3			27.0	(9-14)			127
Clackamas River	1	24.8	10.4				238		
	1	24.8		9.8				253	
	2	21.0			12.9	(6-9)			163
Willamette River	10	39.4	17.1				230		
	10	39.4		12.3				320	
	10	39.4			18.0	(4-16)			219
Silver Lake Basin	1	3.4	0.0				-		
	1	3.4		0.0				-	
	1	3.4			0.7	(5)			486
Chewaucan River	1	11.0	7.8				141		
	1	11.0		3.3				333	
	1	11.0			4.9	(7)			224
Harney Basin	7	7.8	7.3				107		
	7	7.8		3.8				205	
	7	7.8			5.3	(2-15)			147
Guano Lake	2	4.0	6.4				62		
	2	4.0		3.3				121	
	2	4.0			4.9	(6)			82
Warner Lake	1	13.6	10.9				125		
	1	13.6		8.6				158	
	1	13.6			8.8	(7)			154
Umpqua River	6	21.5	9.1				236		
	6	21.5		6.5				331	
	6	21.5			10.2	(7-10)			211
Upper Rogue River	13	28.7	18.4				156		
	12	24.8		11.2				221	
	13	28.7			20.7	(2-15)			139
Applegate River	4	25.8	18.6				139		
	4	25.8		14.9				173	
	4	25.8			23.2	(10-11)			111
Illinois River	2	17.2	14.0				123		
	2	17.2		7.4				232	
	2	17.2			16.6	(9-10)			104
Klamath Lake Basin	19*	22.5	12.9				174		
	20*	17.6		7.4				238	
	21*	20.4			13.4	(2-19)			152
Goose Lake Basin	3*	10.2	7.7				132		
	3*	10.2		6.4				159	
	3*	10.2			5.6	(7-15)			182

* Including Copco water measurement stations.

STATUS OF WATERSHED SOIL MOISTURE

Soil moisture samples were not secured on Southern Oregon watershed soil moisture stations in the spring of 1946. Samples elsewhere in Oregon were secured at established soil moisture stations as included in the tabulation below.

Summary of Soil Moisture in March
Central and Eastern Oregon 1940-1946
(Soil moisture is expressed as percentage of the soil dry weight.)

Soil Moisture Station	Date	Depth in Feet 0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	0-3	3-5 or 3-6	0-5 or 0-6
Blue Mtn.	3-26-40	54.8	32.4	25.2	28.6	23.4	-	Bedrock		37.5	-	-
Summit	3-19-41	61.0	37.1	31.3	27.4	30.1	32.5	"		43.1	30.0	36.6
Elev. 5098	3-21-42	54.8	46.2	36.5	30.4	33.4	35.0	"		45.8	32.9	39.4
Sec. 6,	3-26-44	54.6	31.0	25.6	27.6	30.6	38.6	"		37.1	32.3	34.7
T. 12 S.,	3-26-45	46.6	28.6	34.4	37.2	34.8	34.7	"		36.5	35.6	36.0
R. 36 E.	3-17-46	55.0	32.4	37.6	41.5	35.7	26.0	"		41.7	34.4	38.0
Catherine	3-22-42	59.7	52.1	45.7	40.1	39.4	42.6	43.2	53.0	52.5	40.7	46.6
Creek	3-24-44	53.6	26.4	24.8	24.9	27.0	28.4	31.6	37.3	34.9	26.8	30.8
Elev. 4240	3-24-45	61.0	41.0	26.4	36.6	36.5	44.4	47.5	66.3	42.8	39.2	41.0
Sec. 27,	3-15-46	46.4	38.4	28.0	33.8	28.8	34.0	65.2	61.8	37.6	32.2	34.9
T. 5 S.,												
R. 41 E.												
Chemult	3-27-40	63.2	53.7	51.4	52.6	42.0	37.7	41.8	44.9	56.1	44.1	50.1
Elev. 4760	3-18-41	56.7	36.2	36.5	36.6	37.4	38.0	40.9	43.8	43.1	37.3	40.2
Sec. 21,	3-20-42	35.9	35.4	39.3	35.8	37.1	39.1	42.2	45.8	36.9	37.3	37.1
T. 27 S.,	3-21-44	58.8	35.2	33.2	32.4	34.8	35.6	38.2	42.1	42.4	34.3	38.3
R. 8 E.	3-20-45	72.8	36.4	38.6	38.9	38.7	39.8	43.5	46.6	49.3	39.1	44.2
	3-10-46	36.4	35.4	33.7	33.9	34.8	34.4	36.8	42.0	35.2	34.4	34.8
Dooley Mtn.	3-19-41	47.4	21.9	19.7	18.8	24.6	22.3	Bedrock		29.7	21.9	25.8
Elev. 5300	3-22-42	51.2	35.3	24.9	25.7	-	-	"		37.1	-	-
Sec. 32,	3-26-44	43.9	26.1	15.2	10.5	10.9	-	"		28.4	-	-
T. 11 S.,	3-26-45	59.5	29.6	14.8	13.9	-	-	"		34.6	-	-
R. 40 E.	3-17-46	46.0	24.1	14.0	11.6	15.0	-	"		28.0	-	-
Emigrant	3-23-42	71.8	66.8	33.8	28.9	29.1	37.6	33.6	-	57.5	31.9	44.7
Springs	3-24-44	60.4	32.3	25.4	21.8	25.2	-	-	-	39.4	-	-
Elev. 3900	3-24-45	60.0	57.5	35.9	28.5	31.2	47.1	-	-	51.1	35.6	43.4
Sec. 29,	3-15-46	66.0	59.6	35.3	30.1	37.7	46.1	-	-	53.6	38.0	45.8
T. 1 N.,												
R. 35 E.												
Granite-	3-19-41	58.5	24.9	13.9	14.9	7.5	Bedrock			32.4	11.2	23.9
Sumpter	3-24-42	45.4	17.9	12.9	14.9	16.4	"			25.4	15.7	21.5
Divide	3-25-44	54.7	19.9	11.1	7.2	11.9	"			28.6	9.6	21.0
Elev. 5790	1945	Not measured										
Sec. 22,	3-16-46	57.7	22.5	11.5	10.8	11.9	"			30.6	11.4	22.9
T. 9 S.,												
R. 36 E.												

(Continued on page 8)

(Continued) Summary of Watershed Soil Moisture

Ochoco	3-26-40	58.3	53.6	59.7	42.4	41.0	41.8	40.0	42.9	57.2	41.7	49.5
Mountain	3-18-41	56.1	50.5	43.9	42.4	45.3	45.3	46.5	45.9	50.2	44.3	47.2
Elev. 5080	3-21-42	49.5	54.6	45.5	44.1	42.5	44.3	42.7	40.4	49.9	43.6	46.8
Sec. 8,	3-22-44	62.4	44.2	41.6	41.0	37.4	39.0	40.9	39.3	49.4	39.1	44.3
T. 13 S.,	3-21-45	55.3	52.4	49.2	46.0	44.0	42.9	42.3	35.4	52.3	44.3	48.3
R. 20 E.	3-12-46	48.0	51.4	54.6	48.0	50.7	45.8	53.2	49.4	51.3	48.2	49.8
Quartz Mtn.	3-25-42	33.5	34.6	39.4	39.9	36.2	31.4	38.5	57.4	35.8	35.8	35.8
Elev. 5350	3-28-44	35.8	18.9	24.4	28.3	34.1	26.3	43.8	52.0	26.4	29.6	28.0
Sec. 33,	3-26-45	58.1	30.6	33.2	32.2	26.4	38.1	35.1	44.0	40.6	32.2	36.4
T. 37 S.,	1946		Not measured									
R. 16 E.												
Starr Ridge	3-24-42	35.0	28.2	26.9	15.6	13.4	14.8	13.9	13.7	30.0	14.6	22.3
Elev. 5156	3-27-44	39.5	25.6	20.3	13.1	14.0	13.0	16.1	15.0	28.5	13.4	20.9
Sec. 20,	3-27-45	43.3	19.6	12.6	13.7	13.6	13.5	14.3	17.4	25.2	13.6	19.4
T. 15 S.,	3-12-46	39.0	27.4	16.6	15.0	12.8	14.5	16.7	-	27.7	14.1	20.9
R. 31 E.												
Tollgate	3-23-42	65.6	56.4	33.3	31.8	30.9	36.6	38.4	42.6	51.8	33.1	42.4
Elev. 5070	3-23-44	61.0	53.0	35.6	34.2	30.7	34.0	38.9	45.9	49.9	33.0	41.4
Sec. 32,	3-23-45	65.3	49.2	34.1	30.9	33.5	36.5	51.9	50.6	49.5	33.6	41.6
T. 4 N.,	3-14-46	64.8	46.5	34.9	34.1	33.2	36.6	40.0	44.8	48.7	34.6	41.7
R. 38 E.												

Soil moisture conditions in the high watersheds are believed now to be better than average on most areas. The station at Chemult, however, has the driest condition since these records were begun in 1940.

Streamflow expectancy from any given snow cover, as affected by watershed soil moisture, should be somewhat increased or decreased from the average 1946 flow in accordance with the relative wetness of the soils.

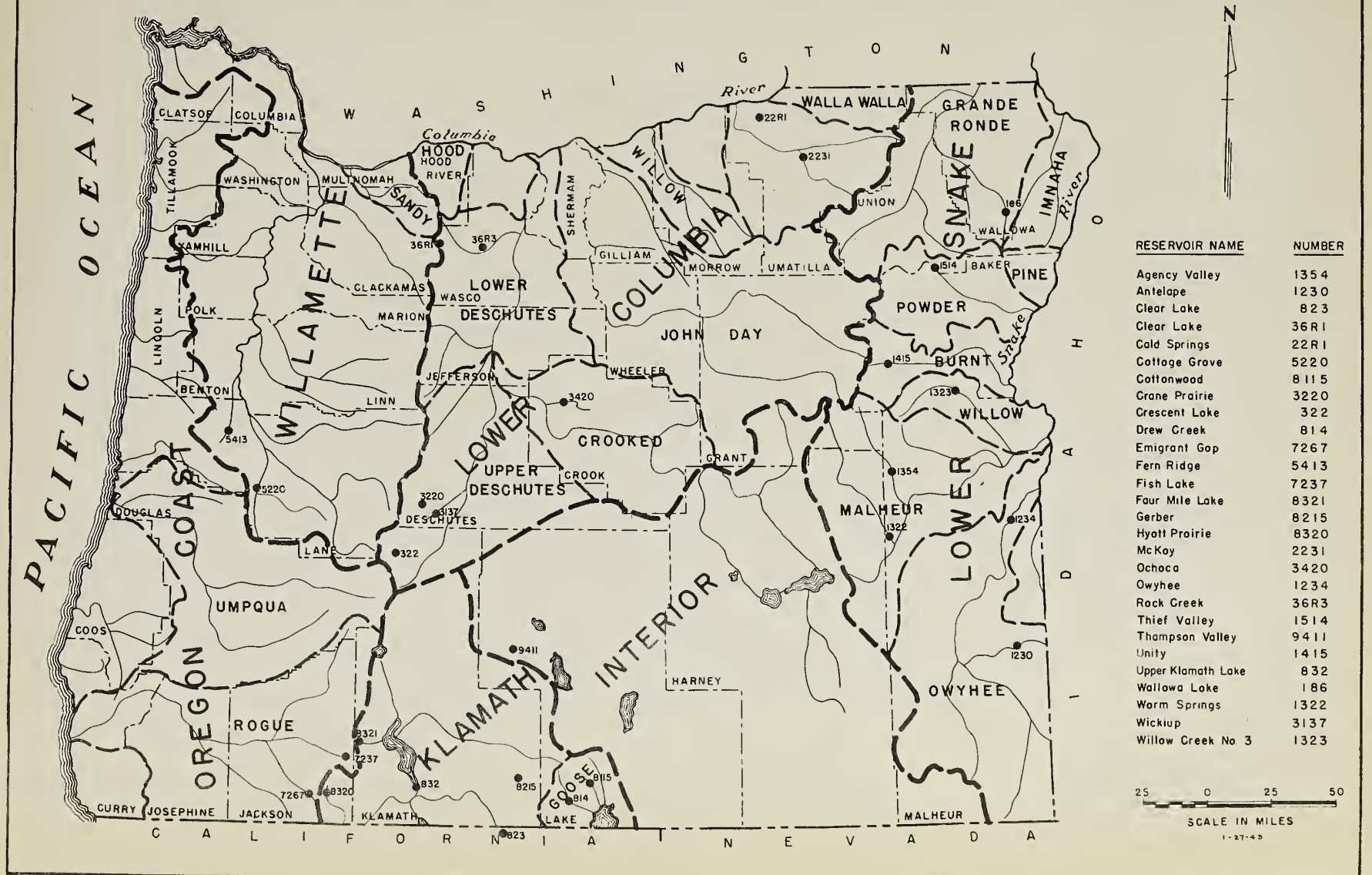
STATUS OF RESERVOIR STORAGE AS OF APRIL FIRST

In the following tabulation, water storage in acre feet in important Oregon reservoirs as of about April 1, 1946, is compared with storage as of approximately the same date in 1945, 1944, 1943, and with 10 yr. average, 1936-45.

Storage Reservoir	Stream Basin	Capacity Acre Ft.	Acre Feet in Storage About 4-1-46	About 4-1-45	About 4-1-44	About 4-1-43	10-yr. Avg. 1936-45
Agency Valley	Malheur	60,000	54,660	60,000	50,210	35,940	47,891
Antelope	Owyhee	36,550	15,037	22,600	4,500	27,733	18,512
Clear Lake	Lost River	440,240[b]	282,440[b]	284,180[b]	296,080[b]	362,620[b,c]	241,442[b]
Cold Springs	Umatilla	50,000	49,000[c]	42,000	50,000	50,000	44,235
Cottage Grove	Willamette	33,090[b]	19,240[b,c]	20,100[b]	19,910[b]	23,740[b]	21,250[b,g]
Cottonwood	Goose Lake	4,160	0 [c]	1,930	399	0 [c]	1,237[h]
Crane Prairie	Deschutes	50,000	39,650[c]	32,300	47,310	41,600[a]	35,376[i]
Crescent Lake	Deschutes	80,000	33,330	34,360	54,310	35,000	35,117
Drew Creek	Goose Lake	62,500	46,271[c]	47,000	43,610	62,000[a]	48,418
Emigrant Gap	Rogue	8,200	8,200[c]	7,948	5,946	8,294	7,770
Fern Ridge	Willamette	101,200[b]	63,500[b,c]	69,200[b]	35,430[b]	77,410[b]	56,925[j,b]
Fish Lake	Rogue	7,720	4,206	4,046	6,988	5,816	4,995
Fourmile Lake	Klamath	14,000[d]	5,072	8,602	11,780[a]	4,704	8,203
Gerber	Klamath	94,000[b]	51,920[b]	59,600[b]	53,944[b]	75,640[b,c]	59,453[b]
Hyatt Prairie	Klamath	16,000[d]	3,900	3,605	7,600	12,030[a]	7,364
McKay	Umatilla	74,000	62,050[c]	62,050	54,160	64,280[c]	50,814
Ochoco	Crooked	46,000	43,060[c]	11,360	24,000	45,760	21,031
Owyhee	Owyhee	716,000[b]	681,610[b,c]	606,420[b]	525,320[b]	617,200[b,c]	630,235[b]
Rock Creek	White	1,350	1,350	800	775	-	7,875[k]
Thief Valley	Powder	17,400	18,080[c]	17,400	17,400	17,400[c]	16,958[i]
Thompson Valley	Silver Lake	17,400	4,024	2,300	7,184	15,000	6,158
Unity	Burnt	25,260	14,850	13,000	12,400	11,980[c]	16,415[l]
Upper Klamath	Klamath	583,900[f]	337,780[f]	359,620[f]	333,400[f]	438,600[f,c]	466,467[f]
Wallowa Lake	Wallowa	40,920	12,180	12,020	31,880[a]	25,640	20,784
Warmsprings	Malheur	190,000	139,500	90,084	131,430	184,900[c]	125,946
Wickiup	Deschutes	180,000	70,610	67,220	9,000[a]	9,068[c]	28,429[g]
Willow Creek	Malheur	26,000	15,000[a]	13,000	11,640	9,000[a,c]	7,127

a - Estimated
b - Available for use
c - Water being by-passed to provide space for anticipated inflow
d - By ditch to Rogue River side
e - Approximate
f - Based on gage zero elev. 4135.0
g - 1943-45
h - Excl. 1942
i - 1937-45
j - 1942-45
k - 1944-45
l - 1938-45
m - Excl. '36, '41, '42

IMPORTANT OREGON RESERVOIRS



RESERVOIR NAME	NUMBER
Agency Valley	1354
Antelope	1230
Clear Lake	823
Clear Lake	36R1
Cold Springs	22R1
Cottage Grove	5220
Cottonwood	8115
Crane Prairie	3220
Crescent Lake	322
Drew Creek	814
Emigrant Gap	7267
Fern Ridge	5413
Fish Lake	7237
Four Mile Lake	8321
Gerber	8215
Hyott Prairie	8320
McKay	2231
Ochoco	3420
Owyhee	1234
Rock Creek	36R3
Thief Valley	1514
Thompson Valley	9411
Unity	1415
Upper Klamath Lake	832
Wallowa Lake	186
Worm Springs	1322
Wickiup	3137
Willow Creek No. 3	1323

U.S. DEPT. OF AGRICULTURE

SOIL CONSERVATION SERVICE
7-L-3060

STATUS OF VALLEY PRECIPITATION AS OF OCTOBER 1 TO DATE

Month	Oct.		Nov.		Dec.		Jan.		Feb.		Mar.		Period	
Section	P	D	P	D	P	D	P	D	P	D	P	D	P	D
S. E.	0.70	-0.01	1.31	+0.14	2.04	+1.01	0.89	-0.37	0.7	-0.3	0.8	0.0	6.44	+0.47
S. C.	1.24	+0.27	2.53	+0.51	2.93	+0.91	1.84	+0.03	1.1	-0.4	1.3	+0.1	10.94	+1.42
N. C.	0.96	+0.06	2.96	+1.16	3.48	+1.78	1.88	+0.17	0.6	-0.5	1.4	+0.5	11.28	+3.17
Col. Riv.	0.66	-0.34	2.38	+0.69	2.64	+0.91	1.31	-0.37	0.8	-0.6	1.3	+0.2	9.09	+0.49
Wal. Mts.	0.52	-0.92	2.36	+0.48	2.41	+0.54	1.40	-0.48	1.0	-0.3	1.5	+0.1	9.19	-0.58
Blue Mts.	0.72	-0.60	3.01	+0.77	3.04	+0.74	2.10	-0.22	1.4	-0.1	1.5	+0.1	11.77	+0.69
Southern	1.54	-0.38	6.66	+3.43	5.04	+1.20	3.98	+0.50	2.3	-0.7	2.7	+0.4	22.22	+4.45
Willamette	2.13	-1.98	13.99	+6.28	9.55	+1.04	9.16	+1.52	7.0	+0.5	8.1	+2.3	49.93	+9.66
Area	1.06	-0.49	4.40	+1.68	3.89	+1.02	2.82	-0.10	1.9	-0.3	2.3	+0.5	16.36	+2.47

P - Inches precipitation. D - Inches departure from normal.

S. E. - Southeastern Oregon range lands, Harney and Malheur Counties.
S. C. - Southcentral Oregon range lands, Lake County and Klamath County, except the Cascade Mountains.
N. C. - Northcentral Oregon wheat and range lands, Crook, Deschutes, Jefferson, Wheeler and part of Grant Counties.
Col. Riv. - Columbia River area, wheat and range lands, Gilliam, Morrow, Sherman, Wasco and part of Umatilla Counties.
Wal. Mts. - Wallowa Mountain area, forest and range lands, Wallowa and part of Baker County.
Blue Mts. - The Blue Mountain forest and range area, Union and parts of Baker, Grant and Umatilla Counties.
Southern - Southern Oregon irrigated section, Jackson and Josephine Counties.
Willamette - Parts of Polk, Benton, Yamhill, Washington, Lane and all of Linn, Marion, Clackamas and Multnomah Counties.

Note: Data for the last two months shown above are preliminary, as they are based on a few stations only. Data for earlier months have been corrected to include all the stations in Climatological Data for the area.

STREAM BASINS (Primary & Secondary & Snow Courses)	LOCATION Oregon Number	Sec.	Twp.	Range	Elev.	SNOW COVER MEASUREMENTS About April 1, 1946 Date	Avg. Snow Depth (In.)	Avg. Water Depth (In.)	Average Water Depth (Inches) One Month Ago (3-1-46)	One Year Ago (4-1-45)	Two Years Ago (4-1-44)	Avg. for past yrs. of record	Yrs. of record
UPPER COLUMBIA DRAINAGE													
LOWER SNAKE IN OREGON													
OWYHEE RIVER													
Big Bend	Nev.	30	45N	56E	6800	4-6	32.4 a	10.8	10.1[a]	12.1	5.6	10.0	11
Fry Canyon	Nev.	32	43N	54E	6800	4-2	30.8 a	9.7	8.8[a]	12.7	6.5	9.1	5
Gold Creek Ranger Sta.	Nev.	32	45N	56E	6600	4-6	19.6 a	5.5	7.3[a]	9.0	3.5	6.8	6
Granite Peak	Nev.	27	44N	39E	8600	4-6	48.9 a	18.2	12.9	15.9	13.0	15.5	6
Lower Buckskin	Nev.	25	45N	39E	6800	4-8	18.4 a	5.8	7.1	11.4	8.2	8.2	5
Lower Jack Creek	Nev.	19	42N	53E	7000	4-4	8.2 a	3.1	5.2[a]	5.1	0.0	2.8	6
Martin Creek	Nev.	24	44N	39E	7000	4-7	17.8 a	5.6	6.7	11.0	7.1	7.9	5
Midas	Nev.	18	39N	46E	7200	4-1	4.7 a	1.6	-	10.2	0.9	2.5	5
Rodeo Flat	Nev.	31	43N	54E	7000	4-2	33.1 a	11.2	9.5[a]	13.8	6.6	9.9	5
South Mountain No.2	Idaho	35	7S	5W	6340	4-1	41.7	14.4	15.1	17.4	6.5	11.2	6
Taylor Canyon	Nev.	32	39N	53E	5200	4-5	10.6 a	3.5	6.7[a]	9.4	0.0	4.1	5
Tremewan Ranch	Nev.	4	29N	55E	5600	Abt. 4-1	0.0 a	0.0	2.5[a]	0.0	0.0	0.1	4
Upper Buckskin	Nev.	14	45N	39E	8200	4-8	22.5 a	7.6	6.4	14.5	11.5	11.6	10
Upper Jack Creek	Nev.	9	42N	53E	7800	4-4	32.0 a	12.0	9.7[a]	15.6	7.5	10.3	5
MALHEUR RIVER													
Barney Creek	143	16	14S	36E	5950	3-29	34.3	11.2	10.8	7.2	-	7.2	1
Blue Mountain Springs	133	21	15S	35E	5900	3-26	57.9	22.0	19.6	14.1	8.2	13.9	16
Crane Prairie	137	24	16S	34E	5375	3-26	33.1	10.8	12.8	7.9	5.8	7.1	8
Lake Creek	136	10	16S	33½E	5120	3-26	37.8	14.3	14.6	10.1	5.6	8.5	8
Rock Spring	134	23	18S	32E	5100	3-31	16.3	5.1	8.0	5.7	3.1	4.4	10
Stinking Water	135	33	21S	34E	4800	3-25	0.0	0.0	6.2	0.0	0.0	0.8	8

a - Telegraphic; subject to minor revision.

STREAM BASINS (Primary & Secondary & Snow Courses)	LOCATION Oregon Number	Sec.	Twp.	Range	Elev.	SNOW COVER MEASUREMENTS About April 1, 1946 Date	Avg. Snow Depth (In.)	Avg. Water Depth (In.)	Average Water Depth (Inches) One Month Ago (3-1-46)	One Year Ago (4-1-45)	Two Years Ago (4-1-44)	Avg. for past yrs. of record	Yrs. of record
BURNT RIVER													
Barney Creek	143	16	14S	36E	5950	3-29	34.3	11.2	10.8	7.2	-	7.2	1
Blue Mountain Summit	141	6	12S	36E	5098	3-28	30.9	11.3	12.3	7.7	4.6	6.4	11
Dooley Mountain	156	32	11S	40E	5430	3-29	31.0	10.8	12.1	10.3	7.2	8.2	7
Tipton	142	34	10S	35½E	5100	3-27	32.7	16.1	17.6	12.5	5.8	9.4	13
POWDER RIVER													
Anthony Lake	155	18	7S	37E	7125	3-27	81.1	36.0	31.8	22.1	20.5	24.8	10
Bourne	154	33	8S	37E	5800	3-30	55.3	20.6	-	22.5	8.4	14.6	10
Dooley Mountain	156	32	11S	40E	5430	3-29	31.0	10.8	12.1	10.3	7.2	8.2	7
Eilertson Meadows	151B	18	8S	38E	5400	3-28	41.9	15.2	15.6	8.9	6.5	11.3	13
Gold Center	249	21	9S	36E	5340	3-29	38.2	14.6	-	12.7	8.0	10.0	7
Summit Springs	184	9	6S	37E	6000	3-29	60.4	20.5	-	19.2	18.2	20.8	10
Taylor Green	185	3	6S	42E	5740	4-1	53.9	21.4	-	14.7	11.7	14.5	8
PINE CREEK													
Schneider Meadows	161	35	6S	45E	5400	3-31	91.8	36.3	-	26.1	20.3	27.3	8
IMNAHA RIVER													
Aneroid Lake No. 1	183	16	4S	45E	7480	3-30	112.2	44.1	36.7	30.5	21.0	33.3	12
Aneroid Lake No. 2	183A	16	4S	45E	7000	3-30	84.2	33.0	28.5	24.9	18.8	25.9	4
Coverdale	171	22	5S	47E	4250	3-27	48.2	18.5	17.4	7.8	-	7.8	1
GRANDE RONDE RIVER													
Aneroid Lake No. 1	183	16	4S	45E	7480	3-30	112.2	44.1	36.7	30.5	21.0	33.3	12
Aneroid Lake No. 2	183A	16	4S	45E	7000	3-30	84.2	33.0	28.5	24.9	18.8	25.9	4
Anthony Lake	155	18	7S	37E	7125	3-27	81.1	36.0	31.8	22.1	20.5	24.8	10
Beaver Reservoir	188	8	5S	37E	5340	3-31		c 13.7	12.8	11.4	8.0	10.2	7

c - Tentative figure; survey notes delayed.

STREAM BASINS (Primary & Secondary & Snow Courses)	LOCATION Oregon Number	Sec.	Twp.	Range	Elev.	SNOW COVER MEASUREMENTS About April 1, 1946 Date	Avg. Snow Depth (In.)	Avg. Water Depth (In.)	Average Water Depth (Inches) One Month Ago (3-1-46)	One Year Ago (4-1-45)	Two Years Ago (4-1-44)	Avg. for past yrs. of record	Yrs. of record
GRANDE RONDE RIVER (Cont'd.)													
Camp Carson	187	33	6S	36E	5970	3-28	31.5	10.3	-	-	5.5	8.6	7
Meacham	221	24&25	1S	35E	4300	3-28	30.7	13.1	14.3	9.9	8.2	7.9	17
Moss Spring	186A	28	3S	41E	5850	3-28	68.1	27.1	24.1	21.6	19.5	23.6	8
Summit Springs	184	9	6S	37E	6000	3-29	60.4	20.5	-	19.2	18.2	20.8	10
Taylor Green	185	3	6S	42E	5740	4-1	53.9	21.4	-	14.7	11.7	14.5	8
Tollgate	212	32	4N	38E	5070	3-28	92.9	39.9	35.5	26.0	20.0	25.0	15
LOWER COLUMBIA DRAINAGE													
WALLA WALLA RIVER													
Tollgate	212	32	4N	38E	5070	3-28	92.9	39.9	35.5	26.0	20.0	25.0	15
UMATILLA RIVER													
Emigrant Springs	222	29	1N	35E	3925	3-28	23.4	9.5	12.7	7.7	5.7	5.2	17
Lucky Strike	223	28	3S	32E	5050	3-26	48.3	16.4	14.6	13.2	9.5	10.9	7
Meacham	221	24&25	1S	35E	4300	3-28	30.7	13.1	14.3	9.9	8.2	7.9	17
Tollgate	212	32	4N	38E	5070	3-28	92.9	39.9	35.5	26.0	20.0	25.0	15
WILLOW CREEK													
Arbuckle Mountain	241	33	4S	29E	5400	3-27	41.2	15.6	14.8	11.8	6.8	9.5	17
JOHN DAY RIVER													
Arbuckle Mountain	241	33	4S	29E	5400	3-27	41.2	15.6	14.8	11.8	6.8	9.5	17
Beech Creek Summit	246A	4	12S	30E	4800	3-26	16.2	7.0	6.8	5.4	3.5	4.7	9
Blue Mountain Springs	133	21	15S	35E	5900	3-26	57.9	22.0	19.6	14.1	8.2	13.9	16
Blue Mountain Summit	141	6	12S	36E	5098	3-28	30.9	11.3	12.3	7.7	4.6	6.4	11
Dixie Springs	244	28	11S	34E	6650	3-29	76.8	31.1	-	20.2	15.3	21.8	10
Gold Center	249	21	9S	36E	5340	3-29	38.2	14.6	-	12.7	8.0	10.0	7
Izee Summit	964	28	16S	29E	5293	3-27	25.2	8.9	9.7	9.0	5.6	6.8	10

STREAM BASINS (Primary & Secondary & Snow Courses)	LOCATION Oregon Number	Sec.	Twp.	Range	Elev.	SNOW COVER MEASUREMENTS About April 1, 1946 Date	Avg. Snow Depth (In.)	Avg. Water Depth (In.)	Average Water Depth (Inches) One Month Ago (3-1-46)	One Year Ago (4-1-45)	Two Years Ago (4-1-44)	Avg. for past yrs. of record	Yrs. of record
JOHN DAY RIVER (Cont'd.)													
Olive Lake	245	14	9S	33½E	6000	3-28	62.4	24.0	22.2	17.6	11.0	16.6	10
Snow Mountain	965	1	19S	26E	6300	3-28	46.7	17.7	16.2	14.6	6.1	10.4	2
Starr Ridge	247B	20	15S	31E	5150	3-27	19.2	7.5	8.3	4.3	3.7	3.6	10
DESCHUTES RIVER													
Caldwell Ranch	326	30	21S	8E	4400	3-26	41.1	17.1	-	2.1	2.6	6.2	9
Cascade Summit	321	7	23S	6E	4880	3-26	103.2	43.9	40.5	20.8	15.9	27.2	16
Charlton Lake	327	23	21S	6E	5750	3-26	116.5	45.8	-	18.3	12.9	23.7	9
Clear Lake	361	29	4S	9E	3500	3-31	47.1	18.4	15.7	6.9	8.2	12.3	14
Crescent Lake	325	11	24S	6E	4760	3-26	41.2	19.5	-	Trace	0.0	5.9	11
Derr	343	14	13S	23E	5670	3-28	34.6	11.5	-	10.4	7.4	9.6	9
Hogg Pass	351	24	13S	7½E	4755	3-27	141.2	59.4	52.4	31.2	22.9	33.5	8
Marks Creek	344	25	12S	19E	4540	3-28	13.5	5.1	6.0	1.0	0.7	2.5	8
Ochoco Meadows	341	21	13S	20E	5200	4-1	43.7	16.4	14.6	11.0	5.0	8.4	17
Rock Creek	362	1	4S	10E	4200	3-27	54.1	21.4	17.7	9.3	-	9.3	1
Snow Mountain	965	1	19S	26E	6300	3-28	46.7	17.7	16.2	14.6	6.1	10.4	2
Three Creeks Meadows	331	3	17S	9E	5600	3-31	77.1	a 31.0	-	9.1	8.4	17.8	17
HOOD RIVER													
Brooks Meadows	431	2	2S	10E	4300	3-29	52.7	20.3	-	8.0	5.0	8.4	13
SANDY RIVER													
Clear Lake	361	29	4S	9E	3500	3-31	47.1	18.4	15.7	6.9	8.2	12.3	14
Phlox Point-Mt.Hood	452	6	3S	9E	5600	3-27	199.3	50.1	54.4	47.1	39.0	51.3	9
Still Creek	451	25	3S	8½E	3700	3-28	84.3	34.5	33.7	18.3	14.7	17.5	9

a - Telegraphic; subject to minor revision.

STREAM BASINS (Primary & Secondary & Snow Courses)	LOCATION Oregon Number	Sec.	Twp.	Range	Elev.	SNOW COVER MEASUREMENTS About April 1, 1946 Date	Avg. Snow Depth (In.)	Avg. Water Depth (In.)	Average Water Depth (Inches) One Month Ago (3-1-46)	One Year Ago (4-1-45)	Two Years Ago (4-1-44)	Avg. for past yrs. of record	Yrs. of record
CLACKAMAS RIVER													
Clackamas Lake	592	35	5S	8½E	3400	4-3	45.9	17.1	15.8	-	-	10.2	6
Peavine Ridge	591	14&15	6S	7E	3500	4-1	63.6	24.8	19.5	10.4	9.8	15.6	9
WILLAMETTE RIVER													
Breitenbush	551	21	9S	7E	2325	4-1	12.3	3.9	5.0	0.0	0.0	0.0	4
Cascade Summit	321	7	23S	6E	4880	3-26	103.2	43.9	40.5	20.8	15.9	27.2	16
Champion	522	12	23S	1E	4500	4-1	114.8	48.4	35.2	18.8	16.1	18.2	7
Charlton Lake	327	23	21S	6E	5750	3-26	116.5	45.8	-	18.3	12.9	23.7	9
Hogg Pass	351	24	13S	7½E	4755	3-27	141.2	59.4	52.4	31.2	22.9	33.5	8
McKenzie	531	35	15S	7½E	4800	3-25	148.3	65.8	-	27.9	25.2	29.0	7
Marion Forks	553	28	11S	7E	2730	3-27	40.8	18.0	17.4	Trace	1.5	5.3	5
Mary's Peak	541	21	12S	7W	3620	3-22	53.0	23.3	-	19.3	6.9	7.0	7
Santiam Junction	552	14	13S	7E	3990	3-27	84.4	38.1	32.8	14.8	8.3	14.2	5
Waldo Lake	521A	15	21S	6E	5500	3-25	120.1	47.1	-	19.6	12.9	22.4	9
INTERIOR DRAINAGE													
SILVER LAKE													
Silver Creek	942	25&26	29S	13E	4900	3-30	8.6	3.4	4.1	0.0	0.0	0.7	5
CHEWAUCAN RIVER													
Mill Creek	922	1	34S	17E	6200	4-5	32.2	11.0	9.6	7.8	3.3	4.9	7
HARNEY BASIN													
Deer Creek	973	17	36S	26E	6670	3-28	22.9	9.5	8.1	8.1	6.2	7.4	6
Fish Creek	952	4	33S	33E	7900	Measurement		Delayed	-	27.1	16.0	23.6	7
Hart Mountain	971	1	36S	25E	6350	3-28	0.0	0.0	0.6	3.4	Trace	1.9	7

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HARNEY BASIN (Cont'd.)													
Idylwild Park	961A	33	20S	31E	5200	4-1	18.5	5.8	8.6	5.8	2.1	2.9	15
Izee Summit	964	28	16S	29E	5293	3-27	25.2	8.9	9.7	9.0	5.6	6.8	10
Rock Spring	134	23	18S	32E	5100	3-31	16.3	5.1	8.0	5.7	3.1	4.4	10
Silvies	951	35	32S	33E	6900	Measurement Delayed			-	19.4	10.0	13.6	9
Snow Mountain	965	1	19S	26E	6300	3-28	46.7	17.7	16.2	14.6	6.1	10.4	2
Starr Ridge	247B	20	15S	31E	5150	3-27	19.2	7.5	8.3	4.3	3.7	3.6	10
GUANO LAKE													
Bald Mountain	Nev.	17	45N	21E	6720	4-1	Trace	Trace	3.1	5.1	0.0	3.1	6
Guano Creek	972	13	36S	25E	6480	3-28	18.3	7.9	7.7	7.7	6.6	6.7	6
WARNER LAKE													
Camas Creek	911A	5	39S	21E	5720	3-30	37.2	13.6	13.0	10.9	8.6	8.8	7
WEST COAST DRAINAGE													
UMPQUA RIVER													
Champion	522	12	23S	1E	4500	4-1	114.8	48.4	35.2	18.8	16.1	18.2	7
Diamond Lake	743	29	27S	6E	5315	3-28	85.0	35.9	31.8	17.6	10.6	18.2	9
Goolaway Gap	726	32	32S	3W	3000	3-28	0.0	0.0	1.8	0.5	0.0	1.7	10
Goolaway Mountain	7215	30	32S	3W	3730	3-28	3.4	1.6	7.3	5.7	1.2	5.5	9
N. Umpqua nr. Lake Creek	742	19	26S	6E	4215	3-31	51.3	20.8	-	5.5	5.8	8.1	9
Trap Creek	741	1	27S	4E	3800	3-29	60.4	22.4	-	6.4	5.4	9.6	9
ROGUE RIVER													
Althouse	7216	17	41S	7W	4400	4-1	16.4	6.1	5.0	7.8	0.5	7.5	9
Annie Spring	831	19	31S	6E	6018	3-30	152.8	69.3	61.2	36.1	23.9	40.5	13
Big Red Mountain	729	31	40S	1W	6500	3-27	77.1	30.3	-	20.3	19.7	29.0	10

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ROGUE RIVER (Cont'd.)													
Billie Creek Divide	722	30	36S	5E	6000	3-25	83.1	36.6	29.9	22.3	17.0	20.5	15
Fish Lake	725	3	37S	4E	4865	3-30	45.6	19.0	16.8	10.0	9.2	11.3	13
Goolaway Gap	726	32	32S	3W	3000	3-28	0.0	0.0	1.8	0.5	0.0	1.7	10
Goolaway Mountain	7215	30	32S	3W	3730	3-28	3.4	1.6	7.3	5.7	1.2	5.5	9
Grayback Peak	727	9	40S	5W	6000	4-1	61.8	28.2	20.4	20.2	14.3	25.7	10
Hyatt Prairie Reservoir	723	15	39S	3E	4900	3-28	32.8	13.2	13.3	7.9	5.6	7.8	13
Little Red Mountain	7210	25	40S	2W	6500	3-27	61.2	26.0	-	19.3	14.7	21.9	10
Park Headquarters	838	8	31S	6E	6450	3-31	164.6	75.3	66.4	49.2	-	57.9	2
Scragg Mountain (Cal.)	7220	9	47N	10W	6200	Not Measured			-	24.2	15.1	20.5	5
Seven Lakes No. 1	7211	3	34S	5E	6800	3-31	145.1	60.2	-	51.8	36.4	55.5	10
Seven Lakes No. 2	7212	26	33S	5E	6200	3-31	140.7	58.0	-	33.2	26.0	40.1	10
Silver Burn	7219	30	30S	4E	3720	3-30	43.9	17.8	17.4	4.6	3.7	8.1	9
Siskiyou Summit	728	17	40S	2E	4630	3-30	7.7	3.2	8.2	2.7	0.3	3.1	10
South Fork Canal	7218	12	33S	3E	3500	3-30	0.0	0.0	4.0	0.0	0.0	0.8	9
Wagner Butte	7213	1	40S	1W	6900	3-29	52.4	18.7	14.9	14.7	10.8	16.1	11
KLAMATH LAKE BASIN													
Annie Spring	831	19	31S	6E	6018	3-30	152.8	69.3	61.2	36.1	23.9	40.5	13
Beatty 2/		22	36S	12E	4300	3-31	0.0	0.0	0.3	0.0	0.0	0.0	19
Billie Creek Divide	722	30	36S	5E	6000	3-25	83.1	36.6	29.9	22.3	17.0	20.5	15
Chemult No. 1	834	21	27S	8E	4760	3-31	44.3	16.6	17.6	4.0	1.1	6.5	9
Chiloquin 2/		34	34S	7E	4187	3-31	0.0	0.0	0.9	0.0	0.0	0.1	18
Crowder Flat (Cal.)		30	47N	11E	5200	3-29	0.0	0.0	5.4	-	0.0	0.0	6
Crystal 2/		26	34S	6E	4200	3-31	26.0	9.5	11.0	Trace	2.5	4.2	16
Fort Klamath 2/		22	33S	7½E	4150	3-31	0.0	0.0	3.3	0.0	0.0	1.0	19
Hyatt Prairie Reservoir	723	15	39S	3E	4900	3-28	32.8	13.2	13.3	7.9	5.6	7.8	13
Kirk 2/		1	33S	7E	4533	3-31	14.2	6.0	11.8	0.0	0.0	1.5	16
Lake of the Woods No.1	835	11	37S	5E	4960	3-31	37.9	13.8	12.7	6.2	7.7	8.6	9
Park Headquarters	838	8	31S	6E	6450	3-31	164.6	75.3	66.4	49.2	-	57.9	2

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KLAMATH LAKE BASIN (Cont'd.)													
Pelican 2/		10	36S	6E	4200	3-31	0.0	0.0	4.6	0.0	0.0	0.8	18
Quartz Mountain	811	2	38S	16E	5320	3-31	24.8	8.4	11.1	5.7	5.1	3.7	15
Quartz Mountain 2/		33	37S	16E	5504	3-31	24.0	b 8.5	9.0	6.5	5.5	4.2	15
Richardson Ranch 2/		22	35S	14E	4800	3-31	0.0	0.0	0.4	-	0.0	0.0	18
Seven Lakes No. 1	7211	3	34S	5E	6800	3-31	145.1	60.2	-	51.8	36.4	55.5	10
Seven Lakes No. 2	7212	26	33S	5E	6200	3-31	140.7	58.0	-	33.2	26.0	40.1	10
Strawberry	837	4	40S	16E	5600	Measurement		Delayed	8.7	7.2	-	3.5	6
Summer Rim	841	15	33S	16E	7200	Measurement		Delayed	-	13.5	8.1	14.7	9
Sun Mountain	836	22	32S	7½E	5350	3-29	106.7	42.9	39.0	20.3	15.4	25.6	9
Taylor Butte	842	16	33S	11E	5100	3-28	21.2	8.1	-	1.9	0.9	2.8	9
Yamsey 2/		7	31S	11E	4600	3-31	4.5	1.5	6.2	0.0	0.0	0.5	15
GOOSE LAKE BASIN													
Camas Creek	911A	5	39S	21E	5720	3-30	37.2	13.6	13.0	10.9	8.6	8.8	7
Quartz Mountain	811	2	38S	16E	5320	3-31	24.8	8.4	11.1	5.7	5.1	3.7	15
Quartz Mountain 2/		33	37S	16E	5504	3-31	24.0	b 8.5	9.0	6.5	5.5	4.2	15
Strawberry	837	4	40S	16E	5600	Measurement		Delayed	8.7	7.2	-	3.5	6

b - Estimated.

IRRIGATION WATER SUPPLY FORECASTS

SEASON OF 1946

- Foreword -

Measurements of water content of snow were secured on all Oregon snow courses between March 22 and April 7. Watershed soil moisture determinations were made at 12 stations during mid-March.

The usual water forecast committee meetings were held in important irrigated regions of the State during the period March 30 to April 8, as follows: The Dalles for Northcentral Oregon; Pendleton for the Umatilla-Walla Walla Basin; Union for Northeastern Oregon; Ontario and Canyon City for Eastern Oregon; Redmond for Central Oregon; Lakeview for Southcentral Oregon; and Grants Pass for Southern Oregon. Most of the cooperating agencies were represented at these discussions.

Each committee's report, outlining the irrigation water supply prospect for 1946 in each area, is reproduced herewith. Modifications of these forecasts may later be required in accordance with deviations of precipitation and temperature from normal during the runoff season.

Forecasts

Northcentral Oregon

Water supply prospects for 1946 in the northcentral portion of Oregon are good throughout, although some lands depending upon sustained streamflow may experience deficiencies late in the irrigation season.

The flow of White River at Tygh Valley is forecast at 185,000 acre feet for the April 1 - September 30 period. This flow will be 55 percent greater than that of last year and 39 percent greater than the 1929-44 average. The greatest flow of record for this six month period on White River was in 1943 when 241,260 acre feet were recorded.

Regulation on Fifteenmile Creek and other Northern Wasco streams is expected to begin about August 1, as compared with July 11 in 1945, and July 10 in 1944. There was no regulation required in 1943.

Hood River Valley lands will have good supplies of water with the West Fork of Hood River forecast to flow 160,000 acre feet during the April-September period. This flow will be 7 percent greater than that of last year, 51 percent greater than in 1944, and 14 percent greater than the 1929-44 average. The 1943 flow of the West Fork was 210,280 acre feet. Studies show that the Middle Fork and East Fork of Hood River flow approximately 20 and 30 percent of the West Fork, respectively. This indicates a flow of 32,000 acre feet in the Middle Fork and 48,000 in the East Fork for the 6-month irrigation season. Soils in the orchard lands of The Dalles vicinity are fairly well wetted, with penetration to 7 feet reported, as compared with a penetration of 4 feet last year and 17 feet in 1943. South Wasco stubble lands are reported wet down to 38 or 42 inches while Sherman County wheat lands are now wet down 6 feet as compared with 4 feet last year.

Umatilla-Walla Walla Basin

Good to abundant water supplies for the irrigated acreage of the Umatilla-Walla Walla area in 1946 are indicated in the present mountain snow cover which averages 40 percent greater than 1943 on the Umatilla and 15 percent greater on the Walla Walla. However, streamflow is not expected to surpass the record flows of 1943 as abnormal precipitation occurred during that runoff season.

Crop land soil moisture conditions are generally better than normal although not as good as in 1943. Moisture in the dry wheat lands has penetrated to an average of about 48 or 54 inches as compared with 32-34 inches last year.

Adequate water supplies for lands served from the South Fork of the Walla Walla River are assured except for the area served from the Hudson Bay and Pleasant View canals which are recent rights and will have some deficiency in late season. This stream is forecast to flow 82,500 acre feet during the April-September period, as compared with the 1929-44 average flow of 64,197 acre feet. This flow will be about 30 percent greater than last year and will equal the flow of 1943.

Umatilla River flow at the station near Gibbon is expected to be 120,000 acre feet for the April-September period and will be 158 percent of average and slightly more than was received in 1943 when 116,830 acre feet were measured. If obtained, this flow will establish a new record for this station.

The Umatilla River at Pendleton is forecast to flow 200,000 acre feet for the six month period remaining. This flow will be slightly better than last year and 37 percent greater than the average.

Cold Springs reservoir has now in storage 49,000 acre feet and can easily be filled.

McKay Creek is forecast to flow 31,000 acre feet into the McKay reservoir during the April-September season. This flow will be 129 percent of the 1929-44 average and about equal to last year's flow. McKay reservoir has now in storage 62,050 acre feet and will fill within a few days.

All lands served from the main Umatilla River and McKay Creek are expected to have adequate water supplies.

Birch and Butter Creeks will likely have flows similar to last year, with sufficient water available for a second irrigation being probable.

Willow Creek in Morrow County will probably have good water supplies similar to those of 1943.

Northeastern Oregon

Adequate water supplies are available for the irrigated lands of Wallowa, Union and Baker counties during 1946. Mountain snow cover is well above average and averages only slightly less than in 1943.

The Imnaha River is forecast to flow 385,000 acre feet for the 6 months, April-September. This flow will equal 132 percent of last year's flow and will be 107 percent of the 1943 flow when abundant water for all irrigation was available.

The Wallowa River, East Fork, is forecast to flow 13,000 acre feet for the 6 months' season. 1943 brought 12,517 acre feet for the same period and this year's predicted flow will be 119 percent of last year and 140 percent of the 16 year average, 1929-44. Wallowa Lake now has in storage 12,180 acre feet which is equal to last year but much less than the 25,640 acre feet stored at this date in 1943. However, indications are that there will be an adequate supply to all lands served from Wallowa Lake.

Wallowa River tributaries are all expected to provide adequate supplies. Hurricane Creek will flow 50,000 acre feet during the April-September period, a figure which is 132 percent of average and 89 percent of the 1943 flow. Lostine River will deliver 135,000 acre feet, or 128 percent of average, and 88 percent of 1943. Bear Creek is forecast to flow 70,000 acre feet during the remaining 6 months of the water year, or 119 percent of average, and 72 percent of the 1943 flow.

Grande Ronde River at La Grande will flow 220,000 acre feet during the April-September period, delivering an adequate supply equaling 149 percent of the 16 year average, 1929-44, and 91 percent of the abundant supply of 1943. Catherine Creek should have a discharge of 90,000 acre feet for the same period, equaling 145 percent of average, and 119 percent of the 1943 flow.

The Powder River drainage will have adequate irrigation supplies this year. Powder River will flow, during the April-September period, a total of 80,000 acre feet, or 164 percent of the 16 year average, 1929-44. This will nearly equal the record flow of 85,939 acre feet in 1943. The North Powder is expected to flow about 80 percent of its 1943 flow for the same period.

Thief Valley reservoir now has 18,080 acre feet in storage with adequate supplies for Lower Powder Valley. Irrigation water supplies in Eagle and Pine Creek areas will be ample and will very nearly equal the abundant supplies of 1943.

The Burnt River area should have adequate supplies in 1946 since the natural flow of Burnt River is forecast at 65,000 acre feet at Hereford for the next 6 months. This flow will equal 210 percent of the 16 year average, 1929-44, and will be 86 percent of the 1943 flow which was a new record. Unity reservoir now has in storage 14,850 acre feet as compared with 13,000 last year and 12,000 in 1943. The reservoir will fill easily.

Eastern Oregon - Section I

The 155,000 acres of irrigated land in Malheur County can expect "good" water supplies in 1946. The outlook generally is for streamflow only slightly less than that received in the abundant water year of 1943.

Owyhee reservoir with 681,610 acre feet now in storage can expect an inflow of 500,000 acre feet for the April 1 - September 30 period, and will probably fill. This flow will equal 125 percent of the 1929-44 average, but will be only 78 percent of last year's flow. Adequate supplies are assured for all users of Owyhee water.

Agency Valley reservoir with 54,660 acre feet of stored water and Warmsprings reservoir with 141,580 acre feet can be filled and are wasting water now. Flow of the Middle Fork of the Malheur at Drewsey is forecast at 86,000 acre feet, or 155 percent of the average for the April 1 - September 30 period. North Fork is expected to flow 70,000 acre feet for the same period, or 154 percent of average. Water users supplied from the Malheur are also assured of good water supplies this year.

Jordan Valley lands are assured of good supplies with the water content of the snow on the South Mountain snow course recorded at 14.4 inches, as compared with 17.4 inches in 1945 and 13.8 in 1943. Storage in Antelope reservoir began on about February 28 and has reached a total of 15,037 acre feet. Although storage at this date last year had reached 22,600 acre feet at this date, it is still likely that the reservoir will fill this year.

Bully Creek and Willow Creek should flow only slightly less than in 1943 and will provide "good" supplies for those lands dependent on their flow. Willow Creek Reservoir No. 3 has approximately 15,000 acre feet in storage at this date.

Eastern Oregon - Section II

Water content of the snow cover on the John Day watershed is considerably greater than last year, 31 to 100 percent greater than average, and above the average of the 1943 record snow pack. "Good" water supplies are thus assured the irrigated lands of the John Day basin.

Strawberry Creek is expected to flow 9,200 acre feet in the remaining 6 months of the water year, or 133 percent of average. This stream discharged 8,005 acre feet during the same period last year, and 11,360 acre feet in 1943.

John Day River at Prairie City (combined with the Power Canal) is forecast to discharge 50,000 acre feet in the next 6 months, or 8 percent more than in 1943, and 133 percent average. The Middle Fork of the John Day River at Ritter will flow 160,000 acre feet which will equal 90 percent of the 1943 flow, and 167 percent average. The North Fork of the John Day River near Dale is forecast to flow 300,000 acre feet, or 154 percent of the average, and 83 percent of 1943.

Crop land soil moisture is considered to be about the equal of or some better than 1945.

Harney Basin has a snow cover equal or better than the record cover of 1943 and will have adequate irrigation supplies.

Silvies River is forecast to flow 104,000 acre feet for the April-September period which will equal 175 percent of average, or 105 percent of last year's flow. Flow of Silver Creek for the same period should be somewhat greater as snow supplies in its headwaters are relatively greater. Soil moisture conditions are good but not quite as satisfactory as last year.

Southern Harney County has an outlook slightly less bright than the northern portion of the County. The Donner und Blitzen River will probably have a well sustained flow totaling about 20 percent less than last year which was a very good year.

Catlow Valley is in poorer condition with probability of 25 to 30 percent less water available than last year.

Trout Creek should have a satisfactory flow with supplies equaling those of 1945.

Range conditions in Harney Basin are generally backward this year, but relatively good conditions are expected with temperature increases.

Central Oregon

Snow supplies in the Upper Deschutes and Crooked River drainages are generally the best ever measured. Water content of the snow on the Crooked River averages 108 percent of 1943 and on the Upper Deschutes averages well over 115 percent of that of 1943. Water content of the snow is the greatest of record on seven of the eleven measured snow courses in this area.

The Ochoco Project will have an abundant water supply with a probable hold-over of 25,000 acre feet in Ochoco reservoir. The reservoir now has 45,360 acre feet in storage and will probably receive a net inflow of 38,000 acre feet during the April 1 - September 30 period. This flow will be a new record and is somewhat greater than the 33,752 acre feet obtained in 1943. Water will begin passing over the spillway within the next 10 days.

Beaver and Rager Creeks at the head of Crooked River are expected to have water supplies similar to 1943 and the main stem of the Crooked River will probably have a flow nearly double that of last year.

The supplies to the Arnold, Central Oregon, Deschutes County Municipal Improvement District, North and Swalley Canals will be ample this year for all irrigation purposes.

The Deschutes River at the gaging station below Snow Creek (above Crane Prairie Reservoir) is expected to make a record flow of 90,000 acre feet during the April-September period. This will be 6 percent greater than in 1943, 138 percent greater than last year, and 103 percent greater than the 1929-44 average. Crane Prairie now has in storage 39,650 acre feet and has been wasting 65 second-feet the last 30 days.

Crescent Lake now has 34,773 acre feet in storage and can expect a net inflow of 20,000 acre feet during the next 6 months. This figure is 183 percent of average and 180 percent of last year.

The Tumalo Project, served from Crescent Lake, has an abundant supply also in the flow of Tumalo Creek (combined with the C. S. Canal) which will discharge 53,000 acre feet in the next 6 months. This is equal to 126 percent of average and 138 percent of last year.

Odell Creek will discharge 40,000 acre feet in the next 6 months' period, as compared with 23,808 acre feet average, and 24,090 acre feet last year. This stream discharged a record of 37,450 acre feet in 1943.

Squaw Creek will furnish 60,000 acre feet during the April-September period, which will be the equal of the 1943 flow, 138 percent of last year's flow, and 126 percent of average.

First irrigation of about 12,000 acres under the new North Unit at Madras is expected to begin about May 15. Wickiup reservoir now has in storage 71,000 acre feet.

The Trout Creek area may expect water supplies nearly equal to those of 1943.

Soil moisture conditions throughout the Upper Deschutes and Crooked River areas are very favorable, being better than last year and in some cases better than in 1943.

Conditions on the range are somewhat backward this year, but the favorable moisture conditions will enhance growth when temperature conditions become favorable.

Southcentral Oregon

Ample water supplies for the 1946 irrigation season in Lake County seem assured with mountain snow cover approximately equaling that of 1943 when abundant water supplies were available.

The Silver Lake area is well wetted and at present Thompson Valley reservoir has 4,024 acre feet in storage with some possibility of its filling. However, Silver Creek will flow much better than last year but will fall short of its 1943 record flow.

The Chewaucan River which flowed 65,290 acre feet in the April-June period last year, and 112,440 acre feet in 1943, is forecast to flow 90,000 acre feet this year for the same period. This runoff will be 80 percent of 1943 and 176 percent of the 1929-44 average.

Goose Lake Valley has a good water outlook with 46,271 acre feet now in storage and now wasting about 1,000 acre feet per day. Cottonwood has no storage as yet but will fill easily. Lands served by Thomas, Cottonwood, Crane, Cogswell, Kelley and New Pine creeks will have good supplies this year with a greater sustained flow than usual.

Warner Valley irrigated lands can expect a good water supply only slightly less than in 1943. Deep Creek is forecast to flow 84,000 acre feet during the April-June period. This flow will be 170 percent of the 1929-44 average and 20 percent greater than that of last year.

The Hart Mountain Antelope Refuge has a snow cover much greater than in 1943, except on the Rock Creek area, and as in other parts of the County the general range condition is somewhat backward.

Southern Oregon

All Southern Oregon irrigated lands have in sight sufficient to abundant water supplies for the 1946 irrigation season.

Rogue River, North Fork above Prospect, is forecast to discharge 420,000 acre feet for six months, April-September. This will equal 142 percent of last year's flow for the same period, 154 percent of the 1929-44 average and 113 percent of 1943 flow.

Flow of Rogue River at Grants Pass will be about 130 percent of normal with estimates for the low flow months as follows:

	Low Monthly Flow	
Month	Obtained-1945	Forecast-1946
July	950 c.f.s.	1270 c.f.s.
August	870 c.f.s.	1250 c.f.s.
September	900 c.f.s.	1270 c.f.s.

Canal alternation will not be required on the Grants Pass Irrigation District this year since low flow is not expected to drop as low as the 870 c.f.s. minimum.

Small tributaries to the lower Rogue, including Evans Creek, Graves Creek and Jump-off Joe, will enjoy good water supplies until about August 15 when regulation will be in effect.

Applegate River near Ruch is expected to flow 145,000 acre feet or 131 percent of the 1929-44 average for the April-September period, and 136 percent of the flow in 1943. Flow of Williams Creek will be very good with plentiful supplies to older rights, including 1908. Newer rights will be closed down in late August.

Bear Creek Valley lands can expect good supplies although present reservoired water is short of the average in some instances. Fourmile Lake reservoir, with 5,072 acre feet now in storage, will have a net inflow of 10,300 acre feet for the April-September period. This inflow will equal 155 percent of average and 85 percent of the heavy inflow of 1943. Little Butte Creek below Fish Lake will have a natural flow of 17,700 acre feet for the six months remaining and will equal 143 percent of average, and 79 percent of the 1943 flow. Soil moisture in orchard lands in the vicinity of Medford is good with the first two feet carrying 88 percent of capacity and the third foot 100 percent.

With Emigrant Gap reservoir full and 3,900 acre feet in storage in Hyatt Prairie, the Talent Irrigation District will probably have sufficient supplies, with an expected inflow of 6,400 acre feet into Hyatt in the next six months. This flow will equal 127 percent average and 131 percent of flow in the same period of 1943.

McDonald Canal through Wagner Gap will probably deliver water throughout the irrigation season.

Adequate water supplies will be available throughout the Klamath Basin and the moisture condition of the soil is very favorable. Net inflow to Upper Klamath Lake for the April-September period is expected to reach 783,000 acre feet which will equal 197 percent of average, 188 percent of 1945, and 90 percent of 1943. These conditions compare very similarly with those of 1938.

Gerber reservoir now has in storage 51,920 acre feet which is a little less than at this date last year and also less than the 10-year average figure of 59,453, but 20,000 acre feet inflow is expected in the remaining six months, assuring a plentiful supply. Total inflow for the year is set at 67,500 acre feet which will be 130 percent of the average.

[illegible]

Clear Lake reservoir can expect an additional inflow of 35,000 acre feet in the next six months with a total flow for the year of 127,600 acre feet, or 118 percent of the average. Content of the reservoir is now 282,440 acre feet which is only slightly less than last year and greater than the 10-year average of 241,442 acre feet. A two year supply will be available from both of these reservoirs.

In the Umpqua River Basin, Cow Creek will have water supplies about equal to those of last year with regulation beginning about August 15. However, reports indicate new irrigation developments in the region on about 100 acres which will increase the demand for water supplies.

Flow forecasts for the North Umpqua River and additional forecasts for Klamath Basin and Southern Oregon streams west of the Cascades are given on Page 3 of this report.

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1/ The following organizations cooperate in the Oregon snow survey work:

STATE

Idaho Cooperative Snow Surveys
Nevada Cooperative Snow Surveys
Oregon Agricultural Experiment Station
Oregon State Engineer and corps of State Watermasters
Oregon State Highway Engineers

FEDERAL

Department of Agriculture
- Forest Service
- Soil Conservation Service

Department of Commerce
- Weather Bureau

Department of the Interior
- Bonneville Power Administration
- Bureau of Reclamation
- Fish and Wildlife Service
- Geological Survey
- Indian Service
- National Park Service

War Department
- Army Engineer Corps

PUBLIC UTILITIES

Eastern Oregon Light and Power Company
Portland General Electric Company
The California Oregon Power Company

MUNICIPALITIES

City of Corvallis
City of LaGrande
City of The Dalles

IRRIGATION DISTRICTS

Associated Ditch Companies
Central Oregon Irrigation District
Deschutes County Municipal Improvement District
Grants Pass Irrigation District
Jordan Valley Irrigation District
Lakeview Water Users Incorporated
Medford Irrigation District
Ochoco Irrigation District
Rogue River Irrigation District
Talent Irrigation District
Vale-Oregon Irrigation District
Warmsprings Irrigation District

PRIVATE CORPORATIONS

Amalgamated Sugar Company

2/ Water content determined by melting a measured sample.
(The California Oregon Power Company's station)